

AC Master 12/500 (230 V)



Product code: 28010500

Mastervolt sine wave inverters have proven themselves under the most extreme conditions for over 25 years. Our inverter family consists of AC Master, Mass Sine and Mass Sine Ultra models, ranging from 300 watt up to 40 kW. The AC Master is ideal for small and medium-sized applications, while Mass Sine and the advanced Mass Sine Ultra inverters are mainly intended for larger systems and for professional purposes.

AC Master series: Reliable AC power for recreational and semi-professional use

These affordable sine wave inverters convert 12 or 24 V battery voltage into reliable 230 V 50/60 Hz or 120 V 50/60 Hz grid power, making them ideal for recreational and semi-professional applications. The AC Master series is easy to install and delivers full output, even under the most demanding conditions. The pure sine wave technology provides an outstanding power quality, ensuring the correct functioning of sensitive equipment. The usage of high frequency switching technology eliminates any annoying humming and buzzing sounds.

Representing complete value for money, these ruggedly built inverters provide essential home comforts when you're far from the nearest grid connection.

Features

- Pure sine wave technology protects sensitive equipment.
- Delivers full output at high peak power under the most demanding conditions.
- Automatic power saving system for extended runtime.
- Compact and lightweight design, saving valuable installation time.
- Reliable and safe operation; protected against over-temperature, overload, short circuit, high or low battery voltage.
- Variable speed fan for quiet operation at low power.
- Optional remote control for instant switch off of the inverter and all connected equipment (not available for the 300 and 500 W models).
- Convenient plug connection for all models, 2500/3500 Watt models also hard wired.

In addition, the 2500/3500 Watt models offer:

- Combine 2 up to 15 units to obtain high power or 3-phase systems.
- Integrated transfer system, switches automatically between AC power sources.

Applications

Both recreational and semi-professional use, where grid power varies or is unavailable. Applications include lighting, appliances, electric cooking and power tools. For (mobile) applications in your home, office or service vehicle, or during your holidays.

Specifications

General specifications

Output voltage	230 V - 50 Hz ($\pm 0.1\%$)
Output waveform	true sine
Nominal battery voltage	12 V
Recommended battery capacity	≥ 100 Ah
Continuous power at 25 °C / 77 °F, cos phi 1	500 W
Continuous power at 40 °C / 104 °F, cos phi 1	400 W
Peak load	800 W
AC connection	universal
Efficiency	90 %
Display/read-out	LED display
Alarms	4 alarm modes
Dimensions, hxxwx	210 x 130 x 60 mm 8.3 x 5.1 x 2.4 inch
Weight	1.22 kg 2.7 lb
Approvals	CE, E-mark, ABYC A-31

Technical specifications

Technology	high frequency, input & output fully isolated
Low battery voltage, switches off at	10 V, ± 0.5 V
Low battery voltage, switches on at	11 V, ± 0.5 V
High battery voltage, switches off at	16 V, ± 0.5 V
High battery voltage, switches on at	14.5 V, ± 0.5 V
Max. ripple on DC (battery)	10 % RMS
Input current (nominal load)	37.5 A
No-load power consumption (ON mode)	0.58 A - 7 W
No-load power consumption (energy saving mode)	0.33 A - 4 W
Minimal DC fuse (slow blow)	2x 40 A
Minimal cable size	1.5 mtr DC cable delivered as standard
Harmonic distortion typical	< 6 %
Cos phi	all power factors allowed
Temperature range (ambient temp.)	0 °C to 40 °C, derating power ≥ 40 °C 32 to 104 °F
Cooling	natural/forced
Switch off at (auto recover after cooling down)	50 °C 122 °F
Protection degree	IP23, vertical wall mounting
Protections	over temperature, over load, short circuit, high/low battery voltage
MasterBus compatible	no